

134-4.

SPECIFICATIONS

for

GOHEEN

PAINTS DAMP-PROOFING
WATER-PROOFING



Goheen Corporation of New Jersey

Paint Engineers

Newark, New Jersey

U. S. A.



Standardization for New Work and Plant Upkeep



Products herein mentioned manufactured exclusively by

GOHEEN CORPORATION
OF NEW JERSEY

PAINT ENGINEERS

Makers of

TECHNICAL PAINTS, DAMP-PROOFING, WATER-PROOFING
NEWARK, N. J.

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Newark, N. J., U. S. A.

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The Purpose of This Booklet

This booklet has been prepared to aid those in charge of construction and maintenance work in industry in the selection, specifying and use of paints. There is no need to emphasize the necessity of protecting and preserving metal and other surfaces, but it is of importance that such measures be effected economically from the standpoint of cost and durability. Goheen Engineers have made it their business to solve preservative problems economically.

The Goheen Assurance

In adopting Goheen paints as standard on all paint specifications construction and maintenance engineers have the assurance that back of them stand a thorough knowledge of the technical formulating of paints, a familiarity with the actual conditions to which the paints are subjected and experience in their use and adaptation.

Recognition of Goheen Paints

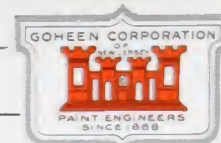
The outstanding recognition of Goheen paints in all industrial fields is the result of a steadfast adherence to an ideal, an uncompromising determination to produce a line of paints that would meet the exacting requirements of special preservative problems.

What paints to use, the directions to be followed to better meet preservative conditions of today, these were the problems for which Goheen Engineers sought and found the answer, and the extensive research which this has set in motion still goes on, a continuing guarantee of Goheen superiority.

Goheen Paint Quality

Experience has shown that the use of the highest quality of paint is in the long run the least expensive investment. A paint that will successfully withstand the destructive elements to which it is subjected demands that the highest qualities of material and an intimate knowledge of paint technology be used. These qualities characterize Goheen Paints.

Goheen Paints have maintained the same high quality for 37 years because better paints cannot be made at any price. The years of effort and success have developed more efficient and scientific methods of production but perfection of quality remains unchanged.



Foreword

It is the intent in the following pages to give briefly a description of various products manufactured by the Goheen Corporation of New Jersey.

There are three factors to be considered.

1ST—The character and capabilities of the Managing Directors of the Company.

2ND—The production facilities.

3RD—The character of the House.

Goheen first came on the horizon in 1888—37 years ago. Until that time all paint manufacturers were house paints manufacturers, and the industrial requirements were merely a side issue. Realizing that the industrial requirements would soon be an important field in itself the Goheen Corporation separated itself from the general class of paint manufacturers and took up an independent field as Paint Engineers, serving solely the railroads, public utilities and industrial requirements, and then limiting themselves to special products required by the above. They were not only the originators of exclusive industrial paints, but have also maintained their supremacy ever since. This could only be accomplished by formulating paints to give maximum durability so that even if a paint is higher at first cost it amortizes itself so that it is the cheapest paint in the long run.

The Maintenance Engineer is constantly confronted with repaint problems, and the longer service he receives from special paint the less paint worries he shoulders upon himself. Most large paint companies are merely financial institutions where the Directing Heads of the Company are not Paint Technologists. The Goheen Corporation is such that the Directing Heads are Paint Technologists and know not only the formulating of paint, but know also the actual conditions to which the paint is subjected as well as the problems of the engineer. The policy of the company is not to secure an order but to secure an account, the motto being that if Goheen supplies the Best Paint for the Particular Need, at all times, bearing in mind the Cost, competition cannot step in, because others are looking for orders and do not have the engineer's problems at heart. The result is that in all these years Goheen Engineers have been studying the conditions to which a paint is subjected and have formulated a paint to suit the work.

The factory of the Goheen Corporation of New Jersey has been so designed as to take care of the testing from the raw material through the finished product. Goheen Paints are not made to-day and shipped tomorrow. They are all carefully tested as to raw materials before manufacture and tested through the process of manufacture as well as after manufacture. The result is that the paint at all times is uniform. In summary we might say:

The securing of Specific Products for each individual need was first called to the attention of the Engineering world in 1888 by the Goheen Corporation.

The Goheen Corporation, since 1888, has continued to specialize and has kept up with the rapid developments in Science and Construction throughout the world.



so that they are prepared to meet each new individual need with a special product for that specific purpose. Moreover, they realized that the manufacturer of a general line of House Paints was not properly prepared or equipped to handle the preservative problems that are continuously confronting the Architects, Consulting Engineers, Railroad Engineers and the Engineers for the large interests. Bearing this in mind, the Goheen Corporation left the field of the ordinary paint manufacturers and took up an independent field—Paint Engineering.

This step was immediately recognized by the technical profession as a great advancement in the Science and Production of Protective Coatings. Since then, the large interests, as well as the leading Architects and Engineers throughout the world, have used to advantage the Engineering Force of the Goheen Corporation in the solving of special preservative problems.

The Research Department is always at the disposal of the Engineer or owner for the solving of the more serious preservative problems to meet the individual case.

This little booklet is brought forth to present in a general way various products that have a record of over thirty-seven years of usage with successful results.

Chemically Combined and Not Mechanically Mixed

Paint is a combination of oil and pigment, in which the oil serves as the vehicle to carry the pigment under the brush, and the pigment covers and colors the surface to which it is applied. The oil acts as a binder and protection against the elements.

Contrary to the general impression, the pigment is of secondary value in most paints. The moment the oil loses its life the paint loses its efficiency.

Ordinary paints are mechanically mixed. There is no combination between the pigment and the oil—merely a mechanical mixture.

GOHEEN'S PAINTS, however, are put through a combining process which creates a chemical union between the pigment and the oil. This combination proves to be far more durable than the same oils and pigments would be if mixed and applied without being chemically combined.



Preservation of Iron and Steel

There are several theories on corrosion, each borne out by practical experiments which seem to prove their logic. We have concluded that each of these theories possesses a grain of truth, but the elaborate arguments pro and con are too academic and of no value for our purpose. Our aim is to make a paint for iron and steel that will not in itself corrode the metal or permit its corrosion by the elements.

Furthermore, Goheen Steel Paints are based upon scientific principles which eliminate any of the reactions necessary to produce rust, according to the Carbonic Acid Theory, the Hydrogen Peroxide Theory, the Electrolytic Theory, or any other theory which has come to our attention. For instance, all of the above theories require the presence of water to promote corrosion. GOHEEN STEEL PAINTS are waterproof and eliminate this fundamental agent from entering into reactions that cause rust.

The Carbonic Acid Theory assumes that the Carbon Di-Oxide in the air combines with the moisture naturally present, forming Carbonic Acid, which acts on the metal to form a Carbonate of Iron. This in turn is further decomposed by the air to form a hydrated iron oxide (rust) and liberates the Carbon Di-Oxide to form more Carbonic Acid, and so on.

The Hydrogen Peroxide Theory assumes the formation of Hydrogen Peroxide, which acts on the steel, giving up its excess oxygen, to form the rust.

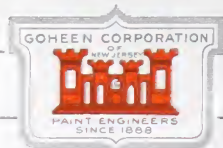
The Electrolytic Theory is based on two possible reactions. One of these is due to the possibility of the paint film being a conductor, which would form an electric couple with the steel, which is also a conductor, resulting in decomposition of the paint, as well as the steel. Also, according to this theory if water reaches the surface of the steel, the normal amount of substance dissolved in it would be sufficient to make it a conductor of electricity and the numerous non-uniform portions of the steel surface would act toward each other like different metals. This is due to the fact that all steel is not absolutely homogeneous like alloys. The surface of the same piece of steel has points of varying compositions, and these act toward each other as positive and negative electric poles, resulting in solution of the metal and precipitation of rust.

The Electrolytic Theory (which we believe to be the most plausible) depends on the fact that steel has a solution tension which is stimulated by certain pigments (acidic pigments) and retarded by others (basic pigments).

GOHEEN STEEL PAINTS are based on pigments whose basicity is higher than any other pigment known to science.

GOHEEN STEEL PAINTS are non-conductors of electricity and will not react with steel; they are inhibitive as well as protective.

An Inhibitive Pigment is one which retards the tendency of the steel to go into solution, as compared with a Stimulative Pigment which encourages this process.



Goheen's Paint Engineering Policy

We have been Paint Engineers to large Industrials, Public Utilities and Railroads since 1888. Our policy is a decided departure from the ordinary plan of mixing and grinding paints.

GOHEEN'S products are all made from laboratory tested materials and each product has been thoroughly tried out on the job during the many years it has been on the market.

GOHEEN'S products are reasonably priced, due to our scientific methods and our policy of doing a volume business.

It will pay you to buy under the "GOHEEN PAINT ENGINEERING POLICY."

Aluminum Paint

ALUMINUM PAINT is being recommended in a great many instances for the sake of appearance and each manufacturer makes varied recommendations. The Engineer is again put in a dilemma.

Good Aluminum paints, as well as poor ones, can be obtained. However, the GOHEEN ENGINEERING DEPARTMENT before bringing out ALUMINUM PAINT carried on extensive tests, not only in regard to PRIMERS but also with ready mixed ALUMINUM PAINTS so that the paint could be applied by the ordinary common laborer and give a first class job.

One of the most essential features in an ALUMINUM PAINT is the vehicle, and by a special treatment of GOHEEN'S LONG LIFE OIL, the ALUMINUM PAINT as manufactured by the GOHEEN CORPORATION OF NEW JERSEY, has been found in actual practice to give that extra added service that is obtained through the use of other GOHEEN products.

The Paint is shipped in small sized packages, as well as in agitator drums, thereby assuring a uniform paint and eliminating all the wastage and non-uniformity caused through bad mixing.

The PRIMERS are very important. A poor PRIMER will permit corrosion of the steel and hasten deterioration of the paint film. GOHEEN PRIMERS are both inhibitive and protective and will prevent any such action.

Priming Coat—this should always be either GOHEEN'S HIGHWAY RED NO. 21 OR GOHEEN'S GRAY NO. 2105.



Mill White Paint

GOHEEN'S MILL WHITE is a superior grade of white coating for all interior surfaces in Industrial Plants, Public Buildings, Offices, Institutions, Residences, etc.

It is unaffected by the sun's rays, and does not darken or yellow from indoor exposure. It remains white even after long service and because of its hard non-porous surface, it reflects the greatest possible amount of light and resists dust and dirt. It is easily washed, like tile, and is good for many years of efficient service. It contains no lead and is therefore non-poisonous and can be sprayed. It is made in the gloss, flat and eggshell.

GOHEEN'S MILL WHITE is mildly acid and fume proof. Where severe conditions prevail, we recommend GOHEEN'S No. 2005 FUME PROOF WHITE.

The modern practice in interior MILL WHITE painting is to use a darker color DADO on side walls and columns. This prevents the soiling or marring which would occur on a white surface, gives a better optical effect to the room and representing but a relatively small part of the painted surface and that below the level of the eye, it does not perceptibly diminish the light reflection of the white walls and ceiling.

GOHEEN'S DADO PAINTS are made with a high gloss. They can be made with an eggshell finish if desired and like all of GOHEEN'S INTERIOR PAINTS, they can be washed or scrubbed to remove dirt or grease without destroying the paint film and the paint, after such cleaning, assumes the original finish and appearance.

In the color cards which are attached to this book, we have prepared a chart showing standard colors. However, should special colors be desired on any of the paints for steel, wood, concrete or enamels, we can supply the paints to meet any specific shade. Either send a sample of the shade desired or advise us as to the shade and we will match it in any of the paints requested.

If at any time any special conditions arise, we would be pleased to solve same for you and furnish you with full details in a form that can be attached to this book.



General Directions for Painting Steel

EXTERIOR METAL

(a) Bridges, Structural Steel, Oil Tanks, Water Tanks, Black Iron Sheets, Trestles, Blast Mains, Cranes, Sash Head Frames, Pipes and other metal surfaces.

Priming and Shop Coat—For the best results and maximum protection on bare metal, GOHEEN'S HIGHWAY RED NO. 21 should be used. It is a chemically combined Red Lead paint, inhibitive, and easy to apply. It is effective with one coat and excels other priming and rust proofing paints.

Finishing Coat—Over GOHEEN'S HIGHWAY RED NO. 21 or over other suitably primed steel surfaces, and over painted surfaces which are in good condition, GOHEEN'S CARBONIZING COATING should be applied. It is a chemically combined, tough and durable paint and has an extremely large covering capacity.

We recommend any of the following shades—

Carbonizing Coating No. 15—	Black
“ “	No. 16—Olive Green
“ “	No. 17—Maroon
“ “	No. 14—Red
“ “	No. 18—Bottle Green
“ “	No. 19—Battleship Gray
“ “	No. 20—Steel Gray
“ “	No. 12—Light Gray

(b) Steel and Iron Exposed to dampness and Acid and Fume conditions.

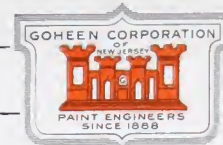
Priming or Shop Coat—For priming steel under severe conditions, GOHEEN'S HIGHWAY RED NO. 21 should be applied.

Finishing Coat—Where the steel is exposed to dampness, acid and fumes, we recommend OXIDIZED CARBON CEMENT R. 1, in a black finish.

Where the steel is exposed to acid and fume conditions, GOHEEN'S OXIDIZED CARBON CEMENT R. 3, should be applied. OXIDIZED CARBON CEMENT R. 3, is moderately alkali proof and resists the action of moderately strong sulphuric and hydrochloric acids, dilute nitric, acetic and organic acids.

The following two shades are recommended—

Oxidized Carbon Cement	R. 3—Black
“	“
“	“
	R. 3—Gray



General Directions for Painting Galvanized Iron

(c) Galvanized Iron

First Coat—Use GOHEEN'S GALVANUM PAINT in any of the shades listed below. GALVANUM is the one outstanding paint noted for its ability to adhere to galvanized iron. GALVANUM forms a strong, enduring, elastic bond. With GALVANUM no preliminary treatment of the surface is necessary. No acid wash. No red lead or primer. No "weathering." Just GALVANUM which is both a priming and a finishing coat—and nothing else. It is applied directly to the metal. GALVANUM NO. 5 is especially recommended as the first coat.

Second and Third Coats—Over GALVANUM in shade selected, apply a second coat of GALVANUM in shade desired. Two coats are usually sufficient but for maximum durability three coats are recommended.

GALVANUM is made in the following standard shades but can also be made in any special shade.

Galvanum	—Black	Galvanum No. 3—Light steel
"	—White	" No. 4—Battleship Gray
"	No. 1—Stone Drab	" No. 5—Red
"	No. 2—Dark Lead	" No. 6—Bottle Green
		No. 7—Chocolate Brown

General Directions for Painting Hot Surfaces

(d) Hot Surfaces—Smoke Stacks, Boiler Fronts, Outside Pipes and other hot surfaces.

First Coat—Goheen's THERMOKOTE—BLACK—is recommended as the priming coat on all hot surfaces. THERMOKOTE is a high heat resisting paint unaffected by acid fumes and gases. It dries with an impervious non-porous coating. It is elastic, chemically inert and has the same co-efficient of expansion as the metal. THERMOKOTE resists heat up to 600° Fahrenheit.

Second Coat—Over GOHEEN'S THERMOKOTE—BLACK—apply a second coat of THERMOKOTE in any of the shades listed below. For maximum durability we recommend black as the finishing coat—

Thermokote	No. 2000—Black
"	No. 2001—Red
"	No. 2002—Olive Green
"	No. 2003—Battleship Gray

General Directions for Painting Steel

INTERIOR METAL

(a) Steel work, underside of Roofs, inside of Walls, Tanks, underground Mine Equipment and other interior metal surfaces.

Priming Coat—We recommend HIGHWAY RED NO. 21 as the priming coat. If desired, one or two coats of the finishing paint may be used on bare metal or over previously painted surfaces which are in good condition.

Finishing Coat—Apply CARBONIZING COATING in shade selected. Where a MILL WHITE OR A FUME PROOF WHITE is desired use GOHEEN'S NO. 2004 MILL WHITE or GOHEEN'S NO. 2005 FUME PROOF WHITE.

Where an aluminum finish is wanted use GOHEEN'S NO. 2006 ALUMINUM PAINT.



General Directions for Painting Steel

INTERIOR METAL

(b) Steel and Iron exposed to severe conditions.

Steel Mine Timbers and other metal surfaces exposed to dampness and fume and acid conditions.

(c) Machinery Pipes, Pumps, Motors, Tanks, Vacuum Pans, Centrifugals, Filter Presses and any other interior metal surface where an enamel finish is desired.

d) Surface to be finished with Aluminum Paint.

Priming Coat—HIGHWAY RED NO. 21 should be applied.

Finishing Coat—Where the steel is exposed to dampness, acid and fume conditions—OXIDIZED CARBON CEMENT NO. 1 should be applied. Where acid and fume conditions prevail GOHEEN'S OXIDIZED CARBON CEMENT R. 3 in either black or steel gray should be used.

Priming Coat—For priming coat on all types of machinery and pipes not exposed to the elements use GOHEEN'S NO. 2006 MACHINERY AND PIPE ENAMEL PRIMER.

Finishing Coat—Use GOHEEN'S MACHINERY AND PIPE ENAMEL in any of the standard shades listed below. Special shades can be made if so desired. The Enamel is proof against oil and water and is unaffected by acid fumes.

Machinery and Pipe Enamel				No. 2007—Black
5.5	5.5	5.5	5.5	No. 2008—Light Gray
5.5	5.5	5.5	5.5	No. 2009—Vermillion
5.5	5.5	5.5	5.5	No. 2010—Bright Green
5.5	5.5	5.5	5.5	No. 2011—Yellow
5.5	5.5	5.5	5.5	No. 2012—Brown
5.5	5.5	5.5	5.5	No. 2013—Bottle Green
5.5	5.5	5.5	5.5	No. 2014—Battleship Gray

Priming Coat—The surface should be primed with GOHEEN'S HIGHWAY RED NO. 21 OR GOHEEN'S GRAY NO. 2015.

Finishing Coat—The finishing coat should be GOHEEN'S NO. 2016 ALUMINUM PAINT.

Directions for General Painting

EXTERIOR

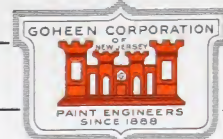
a) Wooden Buildings

GOHEEN'S OLD HONESTY is a high grade wood paint, which, made to withstand extreme climatic conditions, naturally assures most satisfactory service under normal exposure. OLD HONESTY is a chemically combined ready mixed paint for exterior or interior wood surfaces and gives an extremely tough and durable film. On new work for maximum durability three coats are recommended. On old work two coats should be used for the best results. OLD HONESTY is furnished in an OUTSIDE WHITE, INSIDE WHITE, and a large variety of shades, some of which are listed below. A color card showing all standard shades will gladly be sent upon request. OLD HONESTY can also be made in any special shade desired.

Old Honesty	No. 506	Ivory
	No. 517	Terra Brown
	No. 502	Buff
	No. 511	Olive Green
	No. 504	French Gray
	No. 507	Lead

h. Workmen's Houses, Sheds and other miscellaneous buildings.

We recommend as a first quality paint OLD HONESTY. Where one desires to reduce the cost GOHEEN'S STANDARD PAINT OF AMERICA is recommended. It is a medium grade paint of good quality and is made in the same shades as OLD HONESTY.



Directions for General Painting

EXTERIOR

CONCRETE

(c) Concrete, Brick and Stucco Walls.

Priming Coat — GOHEEN'S CONCREWALTUM PRIMER should be used as the priming coat.

Finishing Coat—For the finishing coat GOHEEN'S CONCREWALTUM should be used. CONCREWALTUM is proof against the alkalinity of the concrete and is unaffected by water. It is easily applied and presents a durable and waterproof film. CONCREWALTUM is furnished in a flat, eggshell or gloss finish. It can be made in any special shade. The standard shades are listed below.

Where it is desired to preserve the original color and texture, while damp-proofing and preventing efflorescence, use GOHEEN'S COLORLESS CONCREWALTUM.

Concrewaltum	No. 120—Ivory White
"	No. 123—French Gray
"	No. 126—Tile Red
"	No. 121—Tan
"	No. 124—Brown
"	No. 122—Light Steel
"	No. 125—Willow Green

(d) Exposed Floors, Concrete, Wood, etc.

GOHEEN'S PORCH AND DECK PAINT is used on concrete, wood, canvas and other floor surfaces and decks subjected to wear and exposure. This material is furnished in the same shades as GOHEEN'S CONCREWALTUM FLOOR ENAMEL shown on page 19.

(d) Surface to be finished with Aluminum Paint.

Priming Coat—The Surface should be primed with GOHEEN'S HIGHWAY RED NO. 21 OR GOHEEN'S GRAY NO. 2015.

Finishing Coat—The finishing coat should be GOHEEN'S NO. 2016 ALUMINUM PAINT.

INTERIOR

(a) Plaster Walls and Ceilings.

Priming Coat—On plaster walls apply a priming coat of GOHEEN'S SURFALOX which neutralizes the alkalinity of the plaster and furnishes a suitable base for the finishing coats.

Finishing Coat—Where a flat finish is desired use GOHEEN'S FLAT WALL FINISH. If a gloss is desired apply GOHEEN'S UTILITY ENAMEL. Both the Flat and the Enamel present a sanitary, washable and durable finish. Where the Flat is used two coats are recommended for maximum durability. Where the enamel finish is desired one coat of flat and two coats of GOHEEN'S UTILITY ENAMEL should be used. Both the Flat and the Enamel are furnished in a variety of shades and can be made in any special color. Color card will gladly be sent upon request.



Directions for General Painting

INTERIOR PAINTING

(b) Mill and Factory
White.

Priming Coat—GOHEEN'S MILL WHITE PRIMER should be applied as the priming coat on concrete, brick, plaster and wood. This primer is a flat drying white coating having good hiding power. Metal surfaces should have a priming coat of GOHEEN'S HIGHWAY RED NO. 21 OR GOHEEN'S GRAY NO. 2105.

Finishing Coat—As a finishing coat GOHEEN'S MILL WHITE should be used. It is furnished in a flat, eggshell or gloss finish. GOHEEN'S MILL WHITE gives a washable, sanitary and extremely durable finish. Two coats of the MILL WHITE are recommended for the best results.

(c) Mill and Factory
White under Fume and
Acid conditions.

Priming Coat—Where acid and fume conditions prevail use as a priming coat GOHEEN'S FUME PROOF WHITE PRIMER.

Finishing Coat—Apply GOHEEN'S FUME PROOF WHITE as the finishing coat. It is furnished in a flat, eggshell and gloss finish.

GOHEEN'S FUME PROOF WHITE resists the action of sulphur and acid fumes and is to be used wherever a paint is desired to withstand such actions and not yellow or darken.

(d) Wood Work.

Apply GOHEEN'S OLD HONESTY PAINT as in EXTERIOR (A) in finish desired.

(e) To Dust Proof Con-
crete Floors.

GOHEEN'S ROCKOTE should be applied. This is a water white liquid and does not discolor the concrete. GOHEEN'S ROCKOTE acts on the cement and makes the floor hard and flint like. It stops the dust from getting into the bearings of the machinery and into the employees' lungs.

(f) Wooden Floor.

Priming Coat—Apply GOHEEN'S FLOOR ENAMEL PRIMER.

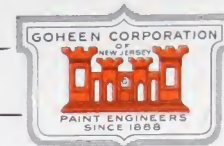
Finishing Coat—Apply GOHEEN'S FLOOR ENAMEL. It is furnished in same shades as GOHEEN'S CONCREWALTUM FLOOR ENAMEL and can also be made in any special shades.

(g) Concrete Floors.

Priming Coat—GOHEEN'S CONCREWALTUM FLOOR ENAMEL PRIMER should be used as the priming coat.

Finishing Coat—Apply GOHEEN'S CONCREWALTUM FLOOR ENAMEL as the finishing coat. It is furnished in standard shades listed below. It can also be made in any special color—

Concrewaltum Floor Enamel No. 150—Light Gray	
“ “ “ No. 151—Dark Gray	
“ “ “ No. 152—Buff	
“ “ “ No. 153—Light Brown	
“ “ “ No. 154—Brick Red	
“ “ “ No. 155—Brown Stone	



Directions for General Painting

INTERIOR

(h) Laboratories, Hospitals, Bath Rooms, Corridors, Cold Storage, etc.

Priming Coat—The surface should be primed with GOHEEN'S ENAMELETTE UNDERCOAT.

Finishing Coat—GOHEEN'S ENAMELETTE should be applied over ENAMELETTE UNDERCOAT. ENAMELETTE presents a durable white finish and is easy to apply. ENAMELETTE is furnished in a gloss or eggshell finish. This can be scrubbed or washed and can be used where ordinary enamels fail and for surfaces in contact with fumes.

RAILROADS

(a) Oil Tank Cars, Freight Cars, etc.

On new steel cars the priming coat should be GOHEEN'S HIGHWAY RED NO. 21, followed by a finishing coat of GOHEEN'S G-3.

On old steel cars all rust spots should be touched up with GOHEEN'S HIGHWAY RED NO. 21 and finished with a coat of GOHEEN'S G-3.

On wood freight cars prime surface with G-3 eggshell. Apply G-3 as the finishing coat.

GOHEEN'S G-3 is made in black, maroon, brown and other shades. G-3 is durable, stands extreme climatic conditions, smoke, fumes and is unaffected by oil.

(b) Under Frame of Cars.

For painting under frames GOHEEN'S NO. 2017 Black or Maroon should be used.

(c) Bridges, Stations, apparatus, etc.

See Paints under Section 1—(EXTERIOR METAL) and Page 12 (WOODEN BUILDINGS).

(d) Surface to be finished with Aluminum Paint.

Priming Coat—The Surface should be primed with GOHEEN'S HIGHWAY RED NO. 21 OR GOHEEN'S GRAY NO. 2015.

Finishing Coat—The finishing coat should be GOHEEN'S NO. 2016 ALUMINUM PAINT.



GOHEEN CORPORATION
OF NEW JERSEY

PAINT ENGINEERS NEWARK, N. J.

CARBONIZING COATING

FOR IRON AND STEEL



15 BLACK



16 OLIVE GREEN



17 MAROON



14 RED



18 BOTTLE GREEN



19 BATTLESHIP GRAY



20 STEEL GRAY

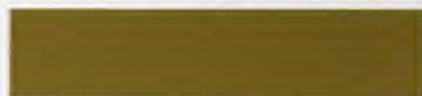


12 LIGHT GRAY

In addition to the above shades CARBONIZING COATING can be supplied in any special shade to meet the standard of the buyer.

Galvanum

FOR GALVANIZED IRON



1 STONE DRAB



2 DARK LEAD



3 LIGHT STEEL



4 BATTLESHIP GRAY



5 RED



6 BOTTLE GREEN



7 CHOCOLATE BROWN

Also made in White, Black and Special Shades

HIGHWAY RED

A CHEMICALLY COMBINED RED LEAD PAINT



21 STANDARD SHADE



22 RED LEAD SHADE

CARBONIZING COATING
TRADE MARK
FOR IRON AND STEEL

PITTSBURGH TESTING LABORATORY
PITTSBURGH, PA.

REPORT OF INSPECTION

September 7th, 1923

Gohsen Corporation,
New York City, N. Y.,

Gentlemen:

Re: "Carbonizing Coating" Paint, Pennsylvania
Railroad Train shed at Broad Street Station
Phila. Pa.

We have been advised by James Wilson & Son who had the contract to apply "CARBONIZING COATING" Paint furnished by the Gohsen Corporation on the Pennsylvania Railroad Train Shed at the Broad Street Station, that this structure was painted in the Fall of 1920.

After a careful examination of the trusses, which were subjected to intense heat, we found the steel under the coating of paint to be in first class condition. The rivets were also in very good condition.

We removed a sheet of paint from the web of the girder, which also had been under intense heat, and found the paint to be very durable.

We also made an inspection of the trusses on that part of the shed not subjected to heat and found the paint in perfect condition, apparently as good as when put on.

In our opinion, we consider that the CARBONIZING COATING applied on the Broad Street Station Train Shed was of excellent character.

Respectfully submitted,
[Signature]
J. E. McLaughlin
Inspector

The testimonial letter and photograph on this page show the remarkable elasticity and durability of CARBONIZING COATING, even when subjected to severe conditions.



PHOTOGRAPH OF BROAD STREET STATION, PENNA. R. R. PHILA., DURING FIRE.

The steelwork was painted with CARBONIZING COATING, and this photograph of the Train Shed during the height of the fire shows the intense heat to which the steel and the paint were subjected. This fire proved that CARBONIZING COATING insures the steel against corrosion to a maximum degree.



Highway Red for New Work

Of the two shades of HIGHWAY RED shown on the previous page, the use of the Standard or Dark shade is recommended. The Standard shade can be used also as a finishing coat.

HIGHWAY RED, Red Lead shade, was brought out for users who wanted a Red Lead Paint which would remain in suspension, give a large covering capacity and a uniform coating. It is not recommended for use unless a protective finishing coat, such as CARBONIZING COATING, is to be used.

Specially prepared colors are also available, as follows:

Yellow	No. 2028	Battleship Gray	No. 2025
Red	No. 2000	Bottle Green	No. 2001
Brown	No. 2026	Black	No. 2027

In erecting more than one building at a time different colors should be chosen so that steel arriving for two different jobs will not be confused.

These colors and numbers designated are shop coats.

The field coats should be our CARBONIZING COATING—BATTLESHIP GRAY or any of the above shades—or whatever paint is recommended in this chart.

The painting of hot surfaces has been an expense and nuisance to the majority of plant operators, due to the fact that no consideration was given to the adaptability of the coating used.

Custom or lack of knowledge has caused the use of asphaltum or linseed oil paints to be popularly used as heat resisting coatings for metal, whereas neither is adaptable.

Linseed Oil cannot withstand abnormal heat and readily burns up, leaving the pigment to crumble and dust away. Asphaltum or coal tar paints will withstand greater heat than linseed oil, but cannot withstand the action of the elements, and deteriorate rapidly under the sun's rays. Furthermore, it is an established fact, that asphaltum or coal tar have no protective qualities whatever; Bitumastic Products usually incite rather than retard corrosion.

THERMOKOTE accomplishes the desired result, combining as it does the various ingredients in the proper proportions and treated in a manner to produce a perfect combination to resist extreme temperatures.

The outstanding shade is black, and the durability of this shade is greater than colors or light shades.

THERMOKOTE
A GOHEEN PRODUCT
A PAINT FOR ALL HOT SURFACES
AND STACKS



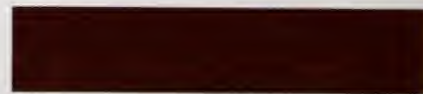
BLACK



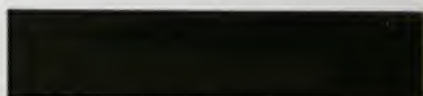
ALUMINUM



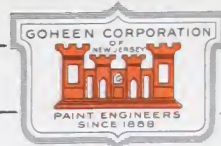
BATTLESHIP GRAY



RED



OLIVE GREEN



Machinery and Pipe Enamels



YELLOW



VERMILION



LIGHT GRAY



BATTLESHIP GRAY



LIGHT GREEN



BRIGHT GREEN



BOTTLE GREEN



BLACK



BROWN



150 LIGHT GRAY



151 DARK GRAY



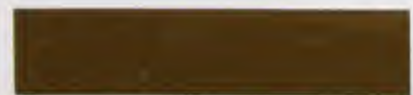
152 BUFF



153 LIGHT BROWN



154 BRICK RED



155 BROWN STONE



156 MOSS GREEN



120 IVORY WHITE



121 TAN



122 LIGHT STEEL



123 FRENCH GRAY



124 BROWN



125 WILLOW GREEN



126 TILE RED



Why Your Choice Should Be

Old Honesty

READY MIXED PAINT

It is now a commonly accepted fact that a ready mixed paint of tested quality is superior in every essential to hand mixed lead and oil.

What happens to pure lead and lead-and-oil mixtures

Pure lead when exposed to the weather chafes and powders, drying in a soft, dust-collecting film that rubs off with friction. It is well known that a straight mixture of lead and oil forms lead sulphide, resulting in the discoloration and fading of the paint, and lessening considerably the protective qualities of the film.

Why the hand-mixed one-pigment paint fails

The one-pigment paint mixed by hand fails, also, because it lacks the necessary uniformity due to the quick setting properties of the lead. The painter making each batch of paint on the job cannot secure a proper mixture of even thickness. The coating of the new surface will have in one place too much pigment and, in another, too little. The human element largely determines the results in such cases.

Why the laboratory should test and mix ingredients

The individual painter is not in a position to make the necessary tests of all raw materials himself, nor has he the time and necessary facilities for properly proportioning them. The best results can be obtained only by using a paint made of laboratory tested ingredients, proportioned in accordance with tried and tested formulas and combined in such a way as to eliminate the disadvantages possessed by the raw materials when standing alone. OLD HONESTY is such a paint.

OLD HONESTY is a chemically combined ready mixed paint for exterior and interior wood surfaces, based upon our paint engineering experience extending over a period of thirty-five years.

OLD HONESTY has many important advantages

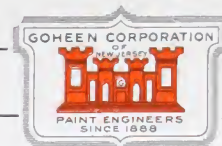
It is made primarily to meet the requirements of the large industrial interests in their company housing developments, and is made specially to resist the action of sulphur fumes, acids, gases, dust and moisture, commonly found about mines, steel mills, coke ovens, and factories.

OLD HONESTY represents the result of years of research and practical tests under the varying conditions found in the soft coal and the steel districts, copper mines, industrial centers and seacoast properties.

The present high cost of building materials and labor demands that every effort be made to secure thorough protection of all structures. If the proper paints are not used at the outset, the cost will appear, not in the paint item, but in the cost of extensive repairs and replacements.

The use of poor paints, which always necessitates constant repainting, not only results in heavier paint charges, but means as well an increasingly greater labor expense. The labor cost in painting is usually two or three times greater than the initial cost of the paint itself. An inferior paint is always more expensive in the long run.

OLD HONESTY, made to withstand extreme conditions, naturally assures most satisfactory service under normal exposure.



Old Honesty Ready Mixed Paint

Gives the satisfaction of a permanent job

Assures thorough protection for every surface

Is available in a wide choice of pleasing colors



500 IVORY



501 CREAM



502 BUFF



503 PEARL GRAY



504 FRENCH GRAY



505 LIGHT STEEL



506 SCOTCH GRAY



507 LEAD



508 LIGHT SLATE



509 SAND STONE



510 PEAR OLIVE



511 OLIVE GREEN



*512 BLIND GREEN



513 BRONZE GREEN



514 BRIAR GREEN



515 MARINE GREEN



516 GOLDEN BROWN



517 TERRA BROWN



518 SEAL BROWN



519 CHOCOLATE BROWN



520 DEEP RED



521 BRIGHT RED



*522 VERMILION



523 YELLOW

OLD HONESTY is Available Also in Outside and Inside White.

*These Colors and Old Honesty White are Slightly Higher in Price.



Goheen's Flat Wall Finish

Has the Washability of Enamel Without the Glare

The time is past when the painting of interior walls was looked upon as a matter of little importance. Today we all know that not appearance alone, but, more important still, health itself depends to a great extent on the selection of the proper wall finish.

The spread of modern ideas of sanitation has been as largely responsible for the success of GOHEEN'S FLAT WALL FINISH as the unusual beauty and restfulness of its soft velvet-like colors.

From their very nature, wallpapers cannot be sanitary. They are in themselves porous and held in place with pastes made of vegetable matter which are ideal breeding places for germs, and wallpapers, of course, cannot be washed.

Cold water paints, too, besides being only temporary, are almost as unsanitary as paper, since they contain glue, casein, dextrine, and similar organic substances on which bacteria feed and multiply.

White lead paints were for a long time looked upon as harmless for interior painting. We know better today. We know that lead-poisoning can often be traced to their use. England, France, and Belgium have legislated against the use of white lead for interior painting.

GOHEEN'S FLAT WALL FINISH contains no lead and no organic matter—nothing that can be harmful to health, or offer a breeding place for germs.

GOHEEN'S FLAT WALL FINISH is as washable as an enamel. Not only is it washable, but, while being absolutely glareless, it gives a uniform surface which *does not catch* and hold the dirt.

GOHEEN'S FLAT WALL FINISH is not made of ordinary oil, as are other wall finishes, but of specially treated oil. Oil and pigment are chemically combined, not simply mechanically mixed. Hence it dries flat without the use of excess thinners which take the life from the oil, leaving the pigment without sufficient binder to hold it together and quickly causing the paint to peel or flake.

GOHEEN'S FLAT WALL FINISH is the most permanent you can buy. It will give five years or more service on interior walls. It retains the original color even when exposed to strong sunlight.

This permanence, combined with great covering capacity, makes GOHEEN'S FLAT WALL FINISH the most economical product of its kind. It covers 500 to 800 square feet per gallon, depending upon the character of the surface.

GOHEEN'S FLAT WALL FINISH has good body, brushes freely, levels perfectly, and dries over night to a firm, uniform finish—*sanitary, permanent, glareless.*

GOHEEN'S FLAT WALL FINISH is applicable to plaster, wood, brick, terra cotta, tile, or artificial lumbars. It should be used for residences, schools, offices, auditoriums, hospitals and other public buildings.

There is nothing else that can equal its

ECONOMY

WASHABILITY

DECORATIVE VALUE

SANITARY QUALITIES

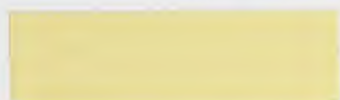
EASE OF APPLICATION



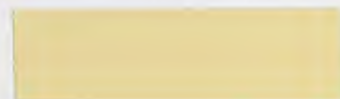
Goheen's Flat Wall Finish



202 CREAM WHITE



235 LIGHT CREAM



117 CREAM GRAY



300 FLESH COLOR



263 GOLDEN



204 SNUFF TAN



213 LEATHER TAN



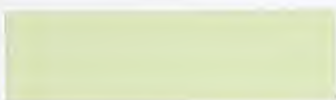
249 ASH COLOR



297 WARM STEEL



364 APPLE GREEN



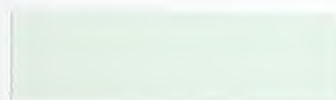
347 WILLOW GREEN



355 MOSS GREEN



156 BRILLIANT GREEN



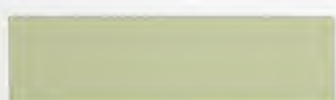
320 ROBIN PEARL BLUE



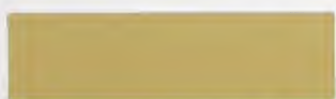
207 ASURE BLUE



306 DAMASCUS



109 ENGLISH STONE



127 LIGHT SANDSTONE



301 WILD ROSE



308 OLD ROSE



142 TERRA COTTA



372 LIGHT CARDINAL



375 DARK CARDINAL



387 ROYAL MAROON



223 LILAC



295 COLONIAL DRAB



175 FRENCH GRAY

